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~~Fig C2~~ ~~Fig A2~~

ABSTRACT OF THE DISCLOSURE

5 A sensor comprising a housing; two highly conductive elements fixed in-part within the housing and in-part exposed external of the housing; the conductive elements separated from one another within the housing in a normally open arrangement. A resilient dome-cap is positioned within the housing, and in some embodiments is conductive and in constant contact with one of the conductive elements, and in other embodiments the dome-cap need not be conductive. A depressible actuator is movably retained by the housing with a portion thereof external of the housing to be accessible for depressive force to be applied thereto by a mechanical device or human finger/thumb. The actuator also includes a portion positioned to allow depressive force applied thereto to be applied to the dome-cap. Pressure-sensitive variable-conductance material is contained within the housing and electrically positioned as a variably conductive element in a current flow path between the two conductive elements. Depression of the actuator causes the dome-cap to bow downward, causing a user discernable tactile sensation indicating actuation of the sensor, and transferring force through the dome-cap into the pressure-sensitive variable-conductance material for providing variable electrical flow between the two conductive elements dependant upon the applied pressure. The resilient dome-cap returns to a raised position and the flow path is again rendered open when the actuator is no longer depressed. Methods of manufacturing the variable electrical output tactile-feedback sensor are also disclosed.

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